

REMARKS

Entry of the amendment is respectfully requested. It is submitted that its entry would either avoid the need for an appeal or lessen the issues on appeal.

Upon entry of the amendment claims 16, 18-21 and 23-33 are before the Examiner. Claim 22 is cancelled and its subject matter, with corrections to reflect the hole size as macro perforations, is included in claim 16 as amended. Claim 16 now includes a sheet with both micro-perforations and macro-perforations. (The significance of this sheet is discussed on page 5 (second and third paragraphs) relative to a synergistic result.) Additional support for the amendatory language is found in original claim 7.

Claims 16, 18-21 and 23-30 are rejected under 35 U.S. C. 103(a) as being unpatentable over Fuchs in view of Stricker et al (5,670,235). Applicants respectfully traverse.

The claims are directed to a covering or molded element suitable for use in transportation vehicles and providing sound insulation over the range of 500 Hz to 5000 Hz. The covering or molded element is relatively compact, thin. The molded element or covering is composed of at least two types of sound absorbers in combination. One is a foam or comprises a nonwoven fiber material. The other is a sheet having both micro and macro perforations. The micro perforated sheet absorber has hole diameter(s) ranging from 0.05 mm to 2 mm and an interhole distance(s) ranging from 1 mm to 20 mm. The hole area ranges from 0.2 to 4%. (The presence of the macro-perforated-micro-perforated sheet produces a synergistic effect. See page 5)

The arguments made in previous responses are incorporated by reference.

In addition, as to the amended claim 16, Applicants respectfully submit that none of the applied references disclose nor render obvious a micro-perforated- macro-perforated sheet

absorber. (This sheet corresponds to the subject matter of now canceled claim 22 (hole size) which subject matter is now included in claim 16 as amended.)

Further, with regard to the term “non-woven”, it is submitted that the term would be understood to the person skilled in this art as one pertaining to fibrous materials. It denotes a fabric like material made from long fibers in a random arrangement. A Google search (enclosed) illustrates this. Also consider the first complete paragraph on page 1 of the specification where Applicants describe desired materials of the invention. Accordingly, the person skilled in the art would not consider “foil”, as mentioned by Fuchs, to be “non-woven” in the context of the present invention. Also, in this regard, consider the first complete paragraph on page one of the specification. Non-woven materials are those which include fibers.

Fuchs does not mention any "non-woven" absorber. Further, as to the Fuchs disclosure of a 1.03 % hole area proportion, this relates to the plain panel of fig. 7 (in combination with column 4, line 28), which is a Plexiglas panel without foam or non-woven layer.

While Fuchs may generally disclose using different hole parameters, e.g. diameters, inter hole distances, etc., to adjust a desired sound frequency to be attenuated, there is no teaching to apply differently defined perforations to different panels let alone the specified perforations of the amended claim 16 (the subject matter of now canceled claim 22).

In contrast, the only variation of parameters that is explicitly mentioned within the disclosure of Fuchs is the variation of the distance for the adaptation of frequency, according to fig. 4.

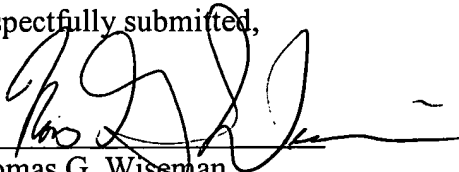
As neither Fuchs nor Stricker discloses the above discussed teaching the subject matter of claim 16, as amended, it is submitted that a proper prima facie case of obviousness is not established based on either Fuchs or Stricker, taken alone or in combination.

Further, considering the results needed here, the size (thinness) and compactness of the sound absorber and the range of sound frequencies to be absorbed, the tasks faced by automotive engineering and civil engineering, building trades respectively, differ. The sound ranges are different as well as possible design options. The options available in automotive engineering are widely limited by weight restrictions, cost, crash performance and distance. The sounds differ also. The Automotive engineer must address the elimination of rolling and engine noise and the distance of these noise sources relative to their short distance to the passenger compartment. The sound proofing of building face presents a different set of problems. Those of static, adherence to walls, and in particular the elimination of walking sound. The attenuation of the noise of a busy street traffic face by the civil engineer is distinct from that facing the automotive engineer. There are significantly different frequency ranges (e.g. shifted to higher frequencies) and distances relative to the noise source. The technological fields appear distinct, non-analogous. Accordingly, the combination of the references, again, is submitted to be improper.

According, a proper prima facie case of obvious has not been established. Withdrawal of the rejection is believed in order and is respectfully requested.

Should the Examiner not find the Application to be in allowable condition or believe that a conference would be of value in expediting the prosecution of the Application, Applicants request that the Examiner telephone undersigned to discuss the case and afford Applicants an opportunity to submit any Supplemental Amendment that might advance prosecution and place the Application in allowable condition.

Respectfully submitted,


Thomas G. Wiseman
(Registration No. 35,046)

VENABLE
Post Office Box 34385
Washington, DC 20043-9998
Telephone: (202) 344-4800
Direct dial: 202-344-4614
Telefax : (202) 344-8300

DC2-DOCS1-553151

[Web](#) [Bilder](#) [Groups](#) [Verzeichnis](#) [News](#)

define: nonwoven

[Suche](#)[Erweiterte Suche](#)
[Einstellungen](#)Suche: ☒ Das Web ☐ Seiten auf Deutsch ☐ Seiten aus Deutschland

Web

Definitions of **Nonwoven** on the Web:

Fabric-like material made from long fibers, bonded together by chemical, mechanical, heat or solvent treatment.

www.paperonweb.com/dict11.htm

(according to ISO 9092:1988) a manufactured sheet, web or batt of directionally or randomly orientated fibres, bonded by friction and/or cohesion and/or adhesion, excluding paper and products which are woven, knitted, tufted, stitchbonded incorporating binding yarns or filaments, or felted by wet-milling, whether or not additionally needed.

www.textilesintelligence.com/glo/index.cfm

Random arrangement of the reinforcement fibers of a scrim sheet or mat.

www.roofhelp.com/Glossary/glossary_n.htm

define: nonwoven

[Suche](#)[Sprachtools](#) | [Suchtipps](#)

©2004 Google

BEST AVAILABLE COPY